

ABSTRACT

A laser marking/imaging system including a passively Q-switched microlaser having a saturable absorber which upon reaching an energy threshold emits a pulse of light through an optical output. The microlaser is electrically connected to circuitry which provides power to the microlaser, and has a simmer mode and a lasing mode. In the simmer mode, power provided to the microlaser is maintained at an energy level below the energy threshold, and in the lasing mode, power provided to the microlaser raises the energy level of the microlaser above the energy threshold. A guidance mechanism can direct the pulse of light from the optical output along a path toward an image receiving target when the microlaser is in the lasing mode.